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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/645,197	08/21/2003	Hideo Ohira	501152.20020	7088
7590	01/09/2006		EXAMINER	
			FAISON, VERONICA F	
			ART UNIT	PAPER NUMBER
			1755	
DATE MAILED: 01/09/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/645,197	OHIRA ET AL.	
	Examiner	Art Unit	
	Veronica F. Faison	1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 21 December 2005.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1,3-5 and 8-19 is/are pending in the application.
- 4a) Of the above claim(s) 4 and 9-14 is/are withdrawn from consideration.
- 5) Claim(s) 5 is/are allowed.
- 6) Claim(s) 1,3,8,15,16,17 and 19 is/are rejected.
- 7) Claim(s) 18 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

DETAILED ACTION

Response to Amendment

Claims 1, 4, 5 have been amended, claims 15-19 have been added and claims 5 and 6 have been canceled. Hence, claims 1-5,8 and 15-19 (claims 4, 9-14 are withdrawn) are pending in the application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 8, 15-17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blease et al (US Patent 6,585,362).

Blease et al disclose an ink composition comprising a colorant and an aqueous carrier wherein the ink composition has a dissolved gas content of less than 3 ppm as measured on the basis of the amount of dissolved oxygen gas at 20°C and a static surface tension at 25°C of greater than 34 dynes/cm (34 mN/m) (abstract and col. 3 lines 41-49). The colorant present in the composition may be a water-soluble dye, a pigment or any other type of colorant (col. 3 line 50+). The reference further discloses that the aqueous carrier is water or a mixture of water and at least one water miscible co-solvent (col. 5 lines 10-12). A surfactant may be added to the ink to adjust the surface tension to an appropriate level, wherein the surfactant is present in the amount

of 0.01 to 1 percent by weight (col. 6 lines 31-36). The reference further discloses that the typical ink composition comprises 0.05 to 20 percent by weight of colorant, 20 to 95 percent by weight of water, 5 to 70 percent by weight of humectant, 2 to 20 percent by weight of co-solvent, 0.1 to 10 percent by weight of surfactant, 0.05 to 5 percent by weight of biocide and 0.1 to 10 percent by weight of pH control agents (col. 6 lines 61-66). The reference discloses that the ink composition is degassed prior to filling.

During the degassing process, ink is pumped to a degassing unit and cycled until the ink reaches the desired gas level. The degassing unit may incorporate known mechanisms for removing dissolved gases from an ink. These methods include but are not limited to physical processes such as boiling and evacuation, and chemical processes such as incorporating gas absorbents in the ink composition (col. 14 lines 46-64). The ink is incorporated into a collapsible bag to allow the low level of dissolved gas in the ink composition to be maintained during printing (col. 14 line 65-col. 15 line 10).

A *prima facie* case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985).

Allowable Subject Matter

Claim 5 is allowed.

The following is an examiner's statement of reasons for allowance:

The references alone or in combination fail to teach a vacuum thin film deoxidation method.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Claim 18 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The references alone or in combination fail to teach a vacuum thin film deoxidation method.

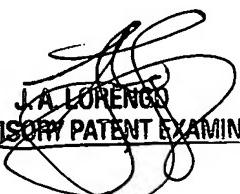
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Veronica F. Faison whose telephone number is 571-272-1366. The examiner can normally be reached on Monday-Thursday and alternate Fridays 8 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VFF
1-3-06


J.A. LORENZO
~~SUPERVISORY PATENT EXAMINER~~